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ABSTRACT

In the spring of 1988, the Massachusetts Department of Education administered its second biennial assessment (the Massachusetts Educational Assessment Program) of students in grades 4, 8, and 12 in reading, mathematics, science, and social studies. This report discusses the use of open-ended questions in the tests of social studies. One-twelfth of the fourth graders, one-sixteenth of the eight graders, and one-twentieth of the 12th graders who were tested in 1988 received a form of the test that contained some open-ended questions. Questions were designed to examine: (1) distinguishing facts and opinion (grade 4); (2) problem solving (grades 4 and 8); (3) cause and effect (grade 4); (4) thematic history (grades 8 and 12); (5) current events (grades 8 and 12); and (6) evaluation of evidence (grades 4, 8, and 12). Sample test items and an analysis of student responses are provided for each grade level in the respective areas of social studies. These open-ended questions confirmed the findings of the multiple-choice sections of the assessment program in social studies; students generally knew diverse facts, but did not know how to apply the facts to form a coherent whole. They were not able to transfer what they knew to what they saw around them. Student responses and their frequencies are summarized in an appendix. (SLD)

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CHAPTER 188

Massachusetts Educational Assessment Program

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On Their Own:

Student Response to Open-Ended Tests in Social Studies

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On Their Own: Student Response to Open-Ended Tests in Social Studies

Brenda Thomas

Massachusetts Educational Assessment

Massachusetts Department of Education

1989

The Commonwealth of Massachusetts
Department of Education

1385 Hancock Street, Quincy, Massachusetts 02169-5183

November 8 1989

Dear Educator:

The four booklets in this series discuss the reading, mathematics, science and social studies results of the 1988 Massachusetts Educational Assessment Program. They represent one of the many efforts of the Department of Education to help schools carry out their educational mission more effectively. In this case, they provide models for student evaluation within the classroom, as well as describing students' progress in understanding.

The title of this series, **On Their Own**, suggests an important aim of education: the ability of students to act as independent, rational thinkers. The questions described in these booklets demand that ability. They demand active intelligence as students are required to relate what they know to new and challenging situations.

In addition to describing students' understanding, these booklets carry a message about the evaluation that goes on in the classrooms. The message is that the short objective tests of facts or procedures, standard fare in most classrooms, are too slight a vehicle to convey the true purpose of evaluation.

In the first place, effective student evaluation is an important component of effective teaching. Research has described the complex thinking that underlies students' errors and misconceptions. Unless teachers take the time to discover for themselves how students understand a subject, they will be unable to adjust their teaching in appropriate ways. This kind of evaluation, involving student discussion and explanation, should be a continuous and constant part of every classroom.

Secondly, evaluation can, and does, affect students' learning. Not only does it signal for the student the content areas that teachers consider important, it gives a message about the kind of thinking that is considered valuable. When testing is limited to short objective questions, requiring a single answer, the message given is that facts are what really count. When questions encourage students to think, to grapple with the material and to consolidate different aspects of learning, the message is much different. Such questions indicate to students that it is the quality of thought that is important, not the correctness of the answer itself. The possibility of different answers opens the door for discussion, argumentation, and intellectual excitement in our schools. This is the message that we want to convey to our students.

We hope that you will study the material included in this series and incorporate the ideas presented in your own classrooms.

Sincerely yours,

Harold Raynolds Jr.

Harold Raynolds Jr.
Commissioner of Education

Acknowledgments

This report would not have been possible without a major contribution from the Social Studies Advisory Committee. These teachers and social studies coordinators analyzed the responses for each question, read and scored the scripts, and interpreted the results with reference to both student achievement and school instruction. It was a major project, which they accomplished with competency, efficiency, grace, and good will. If you find this book at all useful, it is they who should be thanked.

Members of the Social Studies Advisory Committee who contributed to making this booklet possible are:

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Brenda Thomas

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Foreword

Barbara Capron
Executive Secretary,
Massachusetts Council for the Social Studies

Participatory citizenship is essential to the health of our country and our world. Effective social studies programs are necessary to prepare students who can understand and work to solve the problems of our diverse nation and our interdependent world.

Students need knowledge of the current world, the world past, and the world of the future. An exemplary social studies program links classroom learning with experiences gained through social and civic observations, analysis, and action. From a knowledge base of history, geography, government, economics, social institutions, and interpersonal, intergroup, and worldwide relationships—sound social studies instruction teaches the skills, concepts, and attitudes that help learners become problem solvers and decision makers.

Thinking and problem-solving skills are best developed by a constant systematic program throughout all levels of schooling and in all subject areas. Some of these skills, however, are learned especially well in social studies classes:

- data-gathering skills (locating, organizing, and evaluating information sources)
- intellectual skills (comparing, categorizing, questioning, and drawing conclusions)
- decision-making skills (considering alternative solutions and consequences and drawing conclusions)
- interpersonal and group-process skills (recognizing many points of view, generalizing without stereotyping, persuading, compromising, and forming coalitions).

Stimulating learning materials and teaching strategies foster higher-level thinking skills. Using such procedures and sources as case studies, primary sources, interviews, multiple texts, role-playing, drama, debates, field studies, media productions, and current events not only makes social studies come alive but fosters creative and critical thinking. However, we need not only to provide thought provoking lessons; we need to know if students have internalized their learnings. We need to assess how students can express their thoughts "on their own."

The open-ended questions described in the "On Their Own" section of the state social studies assessment provide the classroom teacher with a model for evaluating how well students perform the kinds of thinking skills that we always hope we teach. Much can be learned from the explanations of student responses and the implications for instruction. Information gained from this type of assessment should upgrade social studies instruction and evaluation technique.

Introduction

In the spring of 1988, the Massachusetts Department of Education administered its second biennial assessment. We tested all eligible fourth, eighth, and twelfth grade students in four content areas—reading, mathematics, science, and social studies. Although the large majority of the over 3000 items were given in multiple-choice format, some of the items were open-ended, requiring students to answer in written form. These open-ended questions appeared in one form of the tests at each grade level. Consequently, one-twelfth of the fourth grade students, one-sixteenth of the eighth grade students, and one-twentieth of the twelfth grade students received a test form that contained some open-ended questions. However, they did not all receive the same questions. The ten or so questions in each subject area were distributed in such a way as to produce a sufficiently large number of responses to each question to report reliably. It should be understood, however, that this was a sampling. We did not attempt to cover the many types of information and thinking that each subject requires.

Members of our Advisory Committees, composed of teachers throughout the state, reviewed and categorized all the answers obtained. Their comments and instructional suggestions are reflected in this report.

There are three reasons for our decision to include open-ended questions in our assessment of student performance. While multiple-choice items are efficient, easy to score, and objective, they are a weak measure of how students actually think. Nor can they measure students' ability to generate solutions or students' approach to those ill-structured problems that are most familiar in everyday life. Including these types of questions on the assessment results in a more valid estimation of student achievement than we would have obtained had we limited assessment to multiple-choice items.

Our second purpose in including these open-ended questions was our belief in their intrinsic value: they call for the kind of thinking that education is all about. Too often, educators pay lip service to the need for active learning but teach and test students in ways that demand passivity. By their actions, schools say to students, "We are not interested in *your* response; we are only interested in the *correct* response." This report of the open-ended testing

shows how students respond when they are challenged to define a problem as well as deal with it.

Finally, we hope that such probing will act as a model for classroom testing. We have given the questions themselves as well as the statewide results in order for teachers to try them out in their own classes and, if they desire, to compare the results they obtain to the state norm. We wish to show that this type of testing yields important information about students' understanding of concepts and procedures, their ability to apply their learning to new situations, and their need for further instruction.

Unlike the other assessment areas (reading, mathematics, and science) social studies takes the form of an amalgam of many different subjects and what to include is often a debatable matter. There are those who say that social studies should be limited to civics and government, with no mention of history, sociology, or geography. Others would argue for a broader range designed to prepare a student to function as a productive member of society. Richard Gross, in the September 1988 issue of *Phi Delta Kappan* describes five elements which combined could be called social studies:

- the societal goals of America
- the heritage and values of civilization
- the dimensions and relationships within today's world
- the basic generalizations and the inquiry and learning processes of history and social sciences
- the insights and contributions of related disciplines

In evaluating students' performance on the open-ended social studies questions, it must be taken into consideration that there is no statewide social studies curriculum and that except for the one mandatory year of American history at a secondary level there are no statewide guidelines. The *Massachusetts Educational Assessment: Social Studies Report*, published in November 1988, describes the condition of social studies curricula in the commonwealth.

Given the variety of approaches among different school systems, we found it helpful for assessment purposes to recall the guidelines set forth by the Massachusetts Board of Education in 1987. In *Goals for Education in Massachusetts* the Board sought to maximize the opportunity for all learners

(young and old) to attain their intellectual potential and achieve personal fulfillment. Of the nine goals, four are related, directly or indirectly, to social studies.

Education should develop in each learner the reading, writing, listening, speaking, and computational skills necessary for effective communication, as well as the ability to think clearly and critically. Schools should develop students' evaluative and critical thinking skills and their ability to apply what they have learned. The ability to think clearly and critically, the ability to distinguish between fact and fiction,and the ability to express and evaluate ideas creatively are all facets of this goal.

Education should provide each learner with knowledge and understanding of how our society functions and foster individual commitment to exercise the rights and responsibilities of citizenship. Teaching citizenship is the first duty of the common school. Citizens can only participate effectively when they understand how institutions work, accept responsibility for living within and improving them, are familiar with methods of effecting change, and respect the rights of others in the community. Education must help students develop a shared belief in the essential nature of a democratic society based on the freedom and ability of citizens to consider problems in an informed way, to listen to all sides of an issue, and to make sound individual decisions and commitments.

Education should expand and advance the humane dimensions of all learners, by helping them to cultivate basic shared values and fostering mutual respect. Education should provide students with knowledge of their own and others' heritage and culture. This means more than learning about cultural and individual differences and the richness they add to society. Fundamentally, it means appreciating the essential similarities and interdependence of all human beings and behaving in a way that advances the dignity of all people.

Education should provide each learner with knowledge and understanding of history, the humanities, and our multicultural heritage. Each student should understand history and the humanities as an integrated whole rather than a series of isolated subjects. The study of geography and its relationship to history is one essential component of this understanding, the more so in that it makes students aware of their place in an interdependent world economy. Education should provide each student with more than knowledge of historical events; it should help the student understand the effect of those

events on different fields of human endeavor and appreciate their significance in the world today.

In writing the social studies report, it was necessary to impose some kind of order on questions which range from economic to historical to problem solving. The three forms of thinking explicated in the handbook titled **Reading and Thinking: A New Framework for Comprehension**, published in 1987 by the Department of Education, serve as the framework. They are: thinking that generates ideas; thinking that clarifies ideas; and thinking that assesses the reasonableness of ideas. In analyzing the results of the open-ended social studies questions, we have tried to consider the exercises according to those categories of thinking.

Thinking that generates ideas is creative thought, those strategies used in problem solving along with artistic endeavors.

Thinking that clarifies ideas is that which analyzes statements and word meaning; detects ambiguity and equivocation; classifies and defines; finds conclusions and reasons; and uncovers assumptions.

Thinking that assesses ideas is that which evaluates the reliability of sources and uses evidence to explain, predict, and generalize.

Since so many diverse facts of history and contemporary affairs tie in with other societal elements, prior knowledge is especially important in social studies, including knowledge of specific concepts. Given the constraints of sampling and the lack of a uniform curriculum, however, we focused on student activation of prior knowledge—whatever it might consist of—in the exercises that follow. The process of drawing on prior knowledge students happen to have at their disposal is an integral part of the capacity for critical thinking that we sought to test.

A Question of Answers

Necessarily, much schooling consists of rehearsing students in how to carry out set tasks ("pick out two figures of speech," "compute the average height," etc.). Multiple-choice questioning is a way to test whether students perform as taught when directed to tasks for which they have been prepared. Open-ended questions, by contrast, call upon students to recognize tasks without a label, generate relevant approaches on their own, and articulate their reasoning. In a sense, the student can "get" a right answer only by making his or her answer right.

The open-ended exercises we included in the statewide assessment are reproduced below as they appeared on our questionnaires. So that they can be studied, discussed, and readily referred to by the readers of this booklet, a title has been added to each exercise here, and grade level has been indicated. For example, *Fact and Opinion*, written for Grade 4, is the first exercise.

More important, the exercises were designed to probe aspects of critical thinking that cut across subject areas, inventories of facts, and formal techniques. Distinguishing between types of evidence was one category, tracing cause and effect another. For each exercise or group of related exercises, a heading indicates the aspect of critical thinking involved. Insofar as basic skills such as counting and using words properly entered into the respondents' answers, they were judged more for relevance than for "correctness."

Types of Information

Fact and Opinion: Grade Four

Some students, especially in the lower grades, are not used to distinguishing fact from opinion. Others tend to see fact and opinion as clear-cut—separated by Mother Nature so to speak. However, as students mature, they realize that the differentiation is more important and complex. Though facts are less problematic in definition than opinions, educators themselves differ. Some prefer to say that a fact is something that is true: e.g., "The school has a principal." Others say it is something that is not necessarily true but can be verified (or falsified): e.g., "The principal has two heads."

Defining opinions leads to more problems. Many of our respondents resorted to a formula using the construction "I think" or "I feel" at the beginning of their sentences. This illustrates the confusion typical in the early grades. The Social Studies Advisory Committee noted that when a sentence is prefaced with "I think" or the like, the sentence technically becomes a fact e.g., "The school is big" (an opinion) becomes a fact when stated, "I think the school is big," because it is a fact of the student's thought regardless of whether the school is by some external measure big or not.

The question that provoked confusion follows. In analyzing the pattern of answers, it became evident to us that many respondents at Grade 4 incline to use relative terms such as "big," "small," and "pretty" as absolutes.

> Think about your experiences in school. Write three statements of FACT about your school or school experiences.
>
> Then write three OPINIONS (or value judgements) about your school. Use complete sentences.

Given this state of affairs, our scorers found it useful to sort responses into four categories. These are listed here and illustrated with quotations from student answer sheets.

The scorers used the following rubrics to categorize the student responses: clear fact, questionable fact, clear opinion, questionable opinion.

Clear Facts

My school has a kindergarten.
We get report cards in our school.
The school store is open Monday, Wednesday, and Friday.

Questionable Facts (Generally these were clear opinions but students presented them as facts.)

This school has short recesses.
This school gives hard assignments like this one.
Mrs. Smith's class gets less homework that any other class.

Clear Opinions

This is the greatest school.
Math is the best subject.
Mr. Lee makes experiments fun and interesting.

Questionable Opinions (Generally these were clear facts about the respondent but were presented as opinions by students.)

I like it when we have no homework.
My favorite subject is science.
I think that my school is the best school in town.

Under this system of classification results could then be measured. Some 36 percent of the students were able to generate three clear facts. About 37 percent were able to give three clear opinions. Nearly 14 percent left the question blank. With these numbers in hand, we were then in a position to compare the results with the outcome of the multiple-choice items that touched on the same distinctions.

On the multiple-choice portion of the test, fourth grade students were more adept at identifying facts when selecting from four choices than at identifying opinions.

Which sentence is a statement of FACT?

*	76%	A.	Most automobiles run on gasoline.
	7%	B.	Gasoline smells terrible.
	4%	C.	Fords are the best cars.
	13%	D.	Cars are much too expensive.

Which sentence is a statement of OPINION?

	8%	A.	Japan is an island in the Pacific Ocean.
	20%	B.	More people live in Tokyo than in Boston.
	9%	C.	Japan produces thousands of cars every year.
*	64%	D.	The people of Japan are very hard-working.

Students may have performed better on the multiple-choice questions because the examples given them were clearer cases of fact and opinion. In the second multiple-choice example, the use of the relative term "more" confused 20% of the students, but generally ambiguities only became an issue when students generated their own sentences.

Instructional Implications

By Grade 4, teachers can raise the issue of fact and opinion and point out and discuss gray areas. Fourth graders are on the threshold of being able to generate examples as well as choosing between those presented by a teacher.

Instead of being asked to select an opinion from a a field of four or five sentences, students should be asked to generate their own opinions. By using examples and counter examples, teachers will be more easily able to delineate fact and opinion. Students should probably be encouraged to accept differing answers as long as they can be logically defended.

Problem Solving

Fence Building: Grades Four and Eight

> Suppose you and three other persons are given the job of building a fence around a yard. You are in charge. Describe how you would divide up tasks to get the job done efficiently.

The fence building question, given at Grades 4 and 8, encompassed all three modes of critical thinking. Students in effect were asked to think creatively to generate a method of constructing a fence. After solving the problem of how to build the fence, they then had to clarify their ideas and assign tasks in order to get the work done efficiently. This question also focused on children's ability to schedule and take control of a situation. It indirectly encouraged students to weigh and evaluate alternatives.

Because this was a new and unusual task, activation of prior knowledge probably did not significantly affect student performance. Of course, in any question, there is some activation of prior knowledge, but it unlikely that students know a great deal about fence building. Some Social Studies Advisory Committee members commented that student unfamiliarity with the task was a detriment to their performance on the question. A suggestion was made that cleaning the schoolyard would be more appropriate for this age group, especially fourth graders, thus avoiding the long, detailed shopping lists of materials many students wrote about. To change the task in this way would certainly allow for more activation of prior knowledge and allow students to spend more time in the assignment of workers, but would not allow for as much consideration of creative or generative thinking.

Students performed better on dividing the labor and assigning the tasks than they did on generating plans for building the fence. A sizable number at both grades (22 percent at Grade 4, 33 percent at Grade 8) responded with vague remarks on the order of "divide the work evenly" or "each will build a side." A fourth grader tried to be particularly fair by saying, "If the yard was square, I would have each person build a side." Some assigned tasks in such a way that required people to wait idly while one person completed his or her task. Others were able to make a more detailed and thoughtful division of labor.

A few students even allowed for the particular skills or interests of individual workers in assigning tasks. One interesting note is that at each grade level, a large percentage (16 percent at Grade 4, 19 percent at Grade 8) assigned tasks only to three workers with the expectation that the person in charge would not do any physical labor. There are surprising gender differences here, with 21 percent of the boys and 11 percent of the girls at Grade 4 answering in this manner. By Grade 8, a process of catching up was evident, with 16 percent of the girls and 22 percent of the boys considering only three workers. The following response from an eighth grade boy exemplifies this type of answer.

> I would make the plans and tell the second person how much wood was needed. The second person would get the wood. The third would set up the fence and the fourth would paint it.

Several factors must be considered in devising a cooperative work plan – e.g., workers' interests and skills, the sequence of subtasks dictated by the larger task itself, and the efficient use of each worker's time. Too few students considered enough of these factors.

Instructional Implications

Social studies instruction should include classroom activities where students are required to solve problems, to seek alternative solutions, and to defend their solutions orally and in writing. Brainstorming for alternatives suggests new pathways of thinking to many students.

Students are able to generate plans but often do not consider all the alternatives. By asking students to generate ideas rather than respond to them, students gain skills in evaluating their own thinking along with the confidence that accompanies successfully solving a problem.

This question focuses on the social aspect of social studies. Through involvement with small groups, students can begin to understand group dynamics and socialization. They can also see the democratic/autocratic contrast in action. What happens when one person takes charge? What happens when the wrong person takes charge? What happens when "everybody" takes charge?

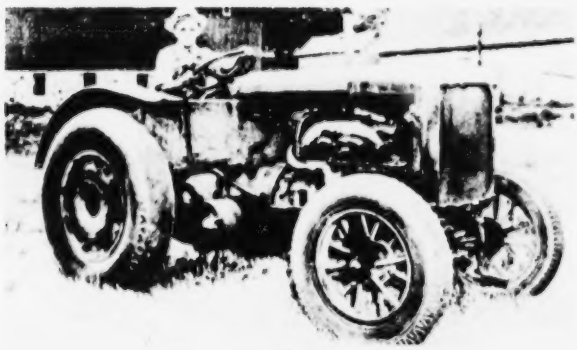
Cause and Effect

Farming and Technology: Grade 4

The following questions drew forth students' ideas about technology as exhibited in farm implements. The first question asked students to gauge the chronological order in which certain items of farm equipment were invented. The other two examined students' ability to discuss cause and effect.

A

B



C

The farm machines shown in the pictures above were invented at different times. Write letters in the boxes below so that the machines are listed in the order in which they were invented.

Students performed well on this task. Fully 86 percent of the students were able to correctly identify the earliest to latest farm machines by a visual estimation of the design. Students are capable of distinguishing between primitive and advanced technology.

However, the limitations of estimating by outward form show up if we compare the result of the open-ended exercise with scores on a similar multiple-choice question.

Which of the following was the oldest form of transportation?

	26%	A.	steamboat
	8%	B.	automobile
*	35%	C.	sailing ship
	31%	D.	railroad train

If students had considered that the sailing ship was the only one of the four with no engine, more of them would have been able to select the appropriate answer. Perhaps in responding to multiple-choice questions, there is a tendency for students to feel that they must either know or not know the specific fact tested rather than reason out an answer as they are forced to by the open-ended format.

As better farm machines were developed, other changes took place in American society. How did the development of better farm machines change the *way people got food for their families*?

This question required that students examine the effects of increased technology on society as a whole, not on the particular group (farmers) using that technology. Thus a connection was sought between (1) labor saving farm machines, larger output, and sale of the overflow to the general public, (2) a decrease in the proportion of the population growing their own food, and (3) the pursuit of careers other than farming. Approximately 12 percent of the fourth graders answered in a satisfactory manner. The following response was typical of this group.

When the earliest farm machines were built it was hard to work and farmers had to live close to their farms. As time has changed, it was

> easier to farm. Farmers could farm for millions of people, not just their families.

A large number of students remained in the realm of the farmer. Fifty-two percent of the fourth graders answered along this vein, indicating that they were able to examine cause and effect only in an immediate setting. For example:

> The development of better farm machines changed the way people got food for their families by making it easier for the farmers to get more food. It was also quicker.

This illustrates a problem that arose with regard to open-ended questions in all subject areas. Namely, students were not able to take the next step in thinking through a problem or task. They are able to see the immediate ramifications but cannot see the long-term effects. They see the first ripple of the stone thrown into the pond but do not see those that follow.

Somewhat disturbing is the fact that 9 percent of the students who answered this question referred to the photographs in the previous question. This presents an issue that has been brought up in *On Their Own: Student Response to Open-Ended Tests in Reading*—whether graphics and illustrations help or hinder a reader, particularly in a situation where the reader may have a tenuous grasp of the subject matter. That almost one-tenth of the students answered in an irrelevant manner suggests that illustrations sometimes obfuscate rather than clarify. The student whose response is quoted below clearly resorted in a literal and concrete manner to the pictures for the previous question.

> People first had machines that were run by animal. The farmer had a machine that he pushed while oxen pulled. Then there was the engine run machine called the tractor. It hauled along the grass and picked up crops. Then we had our machine. It's like a vacuum cleaner. It rolls along sucking the crops out of the ground.

How did better farm machines change *the kinds of jobs* people held to make a living?

The third question in this series deals with the issue of how improved farm machines changed the employment picture. The preferred answer was that with the new technology raising food was no longer the domain of each family. As farms began to produce more with fewer employees, jobs were created in packaging, distributing, and selling food as well as in the manufacture of farm equipment. Furthermore, with more families no longer providing food for themselves, more careers unrelated to food production were pursued. A scant 6 percent of the students gave this type of answer.

> With less people growing more food, merchants were needed to sell it.
>
> Better farm machines changed the kinds of jobs people held to make a living, because less people were needed to run them, so a lot of people got jobs in cities.

As on the previous question, a high number of students looked only at how technology improved the lot of the farmer. They made no effort to carry their thinking to the next logical step. The majority of students (56 percent) discussed how the farmer's life had changed because he could raise food more quickly and easily.

> Better farm machines changed the kinds of jobs because before a job on a farm might be driving a plow horse, now a job might be driving a tractor.
>
> The farm machines changed the kinds of jobs people held to make a living by making it easier for them to be farmers.

Instructional Implications

One focus of teaching the past must include a framework that allows students to place events, ideas, and people in time relationships. Use of time lines—whether taken from a text, supplied by the teacher, or worked out by the

student – readily available for daily reference and comparisons is appropriate. Asking children to create personal time lines showing, one, two, or three generations of their families might be another way to develop a sense of the past and identify the self with history.

In order to establish skills in thinking about cause and effect, teachers might go on from asking "What is _____?" and "Who was _____?" to "Why did _____ happen?" and "What if _____?" Student responses to these questions could be expanded and extended by students responding to one another.

Thematic History

Constitution: Grades 8 and 12

> The year 1987 was the year of the Constitution in the U.S. An important aspect of the document is the system of checks and balances it builds into our government. Give three examples of checks and balances in practice that occurred in 1987. Explain how each is an example of checks and balances.

Here students were challenged to remember political news they had read in the paper or heard on television or radio to prove their understanding of checks and balances as a category and to apply their knowledge correctly. It appears that the task of linking events to abstract knowledge was exceedingly difficult for them. Only 3 percent at Grade 8 and the same at Grade 12 were able to give three actual examples of checks and balances. In both grades, 53 percent left this question blank. Many students grasped for straws with comments such as, "You have to balance your checkbook."

Many students are very glib at stringing together phrases that sound thoughtful but actually say nothing. By throwing in a few plausible words, not necessarily appropriately used, students seem to feel that they have satisfied the needs of an exercise.

> Anything that anyone in the government does must be checked by someone else in the government for flaws or errors after being checked and rechecked, then something can be done about it (whatever the problem may be). An example, not in government, would be the explosion of the space shuttle. The shuttle was checked and rechecked even up to the time of blast-off. This is an example of how things can go wrong even after being checked by someone else. All laws that pass through the government must be checked for having a constitutional allowance, otherwise it will be nullified before it is even passed. The president has the last say on the passage of a law. If he feels that the law is not constitutional, he will either forget about it under his desk or void it and it will have to be rewritten and rechecked all over again.

Some 7 percent at Grade 8 and 9 percent at Grade 12 described checks and balances as defined in their textbooks but could not give concrete examples. The response of a twelfth grader exemplified this approach:

1. The Supreme Court's decision must be checked by the executive branch.

2. The president's decisions must be checked by the Senates and the House of Representatives.

3. Blank

Evidently a good many students are not thinking of history thematically but as a series of unconnected events that have no bearing on one another. They encounter instruction in checks and balances in conjunction with past events and fail to recognize the continuing application of the practice.

One could argue that the question defeated itself because it is too highly dependent on memory and recall in its requirement that only events occurring in 1987 could be cited. Perhaps a more useful way of phrasing it would be any example of checks and balances in recent history or in the past decade.

Students did not perform much better on a related question in the multiple-choice portion of the test.

In 1987, the Senate blocked President Reagan's attempts to have Robert Bork appointed to the Supreme Court. This action was an application of

Gr. 8	Gr. 12		
37%	26%	A.	the power of veto
11%	5%	B.	minority dissent
* 13%	31%	C.	checks and balances
39%	39%	D.	judicial review

Instructional Implications

The poor showing on this question indicates that students are not putting two and two together. If more current events were introduced into the cur-

riculum, students might begin to relate what is happening around them to what is being studied. Unfortunately, too many teachers think current events should be limited to forty minutes a week in Social Studies on Fridays, when in fact they are relevant to almost every discipline and constitute a valuable resource for the teaching of concepts. The recent brouhaha among physicists and chemists over cold fusion, widely covered by the press, provided teaching opportunities pertinent to evaluation of sources, social studies, reading. It is not so much awareness of any one set of current events as the ability to make the connections that is important.

Rights of Citizenship: Grades 8 and 12

Even though citizenship may have been granted to a particular group, history shows that many of the groups' rights as citizens are achieved only piecemeal over time.

What evidence from U.S. history is there to support the statement above?

This question required that students activate prior knowledge and classify ideas in order to link explanations and events thematically across time. The question left open the particular group with the hope that students would know something about a group that interested them or with whom they felt a kinship. There was a clear improvement in the twelfth grade responses over the eighth grade answers. Seven percent of the eighth graders and 19 percent of the twelfth graders gave well-developed answers. Nevertheless, 45 percent of the eighth graders and 38 percent of the seniors left it blank or answered inappropriately.

Of the eighth graders who gave well-developed answers, all discussed African-Americans. Coverage was wider among twelfth graders who gave well-developed answers. About 52 percent of them discussed African-Americans. The rest wrote about other groups such as women, Asian-Americans, or a combination of groups. The following response by a twelfth grade boy offered a well-developed answer about women.

> Certainly the women of America, given citizenship in 1776 by the Declaration of Independence and in 1787 by the Constitution shared little of men's rights. The vote was denied to women until the second decade of the present century. Women, while having the right to office, were generally kept out until recently. Jeannette Rankin and Frances Perkins were pioneers in this regard. The world wars did much for the women who showed the ability to work as well as men. Bit by bit, women have become basically equal to men in the eyes of society.

Many students misunderstood the question and discussed how immigrants become citizens. This points to the need to be clear and concise in wording the questions. When considering the question now, it is easy to see how a

student would think the question referred to the process by which an immigrant becomes a citizen. For example:

> If you immigrate to the U.S. and want to become a citizen, you can't do that until you have been in this country for a certain amount of time. This is an example to support the statement above.

Current Events

World Affairs: Grades 8 and 12

> Is there a place in the world (outside the U.S.) where people are not treated fairly because of their race? If so, where is it and what kind of unfair treatment happens there?

This question measures student awareness of current affairs without asking them to link current events thematically with past events. Almost half of the twelfth graders discussed the treatment of Blacks in South Africa. Half of them were able to discuss this issue intelligibly. A third of the twelfth graders were able to give an in-depth answer using examples other than South Africa. At Grade 8, about one-third of the students wrote about South Africa.

> In South Africa, blacks are discriminated against because of their race. They must use separate drinking fountains, separate flights of stairs, separate parts of the beach, and shop in separate markets. Police will arrest and even shoot a black person on the slightest doubt. Those arrested are often tortured during their incarceration. This is called apartheid and many organizations are working to stop it. (Grade 12 example)

> South Africa, a country on the continent of Africa, was settled many years ago by Dutch and British settlers. It uses a system called "apartheid" where everyone is divided according to their race. Every race has its own schools, places to live, and even toilet facilities. However, the different races do not have the same rights and Blacks, Asians, and Coloreds (mixed races) are prejudiced by Whites. (Grade 8 example)

A significant number of students offered examples of national or religious bias rather than racial bias. Some (6 percent at Grade 12 and 5 percent at Grade 8) expressed generalities along the lines of "Where there are two races, there will be racism." Interestingly enough, in both grades, a number of students expressed stereotypic views of Russia.

> Russia is outside the U.S. and the people are treated unfairly because of their race because if you went over there now, they would probably keep you hostage. (Grade 12 example)
>
> The place people get treated unfairly is Russia. They will not let people leave their country because they are scared that they might not have their people stay there. (Grade 8 example)

A large number of students confuse race with ethnicity. It was suggested that the question be reworded to ask if there is a place in the world where people are not treated fairly because of their differences.

Another area of confusion is geography. A large number of both eighth and twelfth graders meant South Africa but said Africa.

> Yes, in Africa. The white people in Africa are taken over their government, even though there are more black people than white. The white people are limiting the powers of the blacks. (Grade 12 example)

Since student deficiency in geography is well known, it does not seem necessary to discuss this in depth except to note its occurrence. There is also a sense that anything that happens in Africa happens because of racism. Several respondents cited the drought in Ethiopia as though it were an example of racism.

> Ethiopia-They don't send enough food or give them money to come out here. So they would have a better life or go pick some up every time. (Grade 8 example)

The next exercise posed roughly the same task. This time, however, we sought to test the respondents' ideas about citizenship in connection with problems in their own country.

United States Affairs: Grades 8 and 12

In the U.S., are people sometimes not treated fairly because of their race? If so, give examples.

Thirty-nine percent of the eighth graders and 36 percent of the twelfth graders wrote about the treatment of African-Americans in the United States. Almost a quarter of the Grade 8 respondents and 15 percent of the seniors answered with a vague generality on the order of "It used to happen but not any more." Close to 9 percent of the eighth graders cited more than one racial group, as did 20 percent of the seniors.

Students found it difficult to link current events with similar past events. Although they know some history of the civil rights struggle, they are unable to tie the sundry pieces of knowledge together to form a cogent whole. For example, in the multiple-choice test, students performed very well on questions about African-American history and the civil rights movement.

Harriet Tubman was

Gr. 8	Gr. 12		
11%	8%	A.	a famous nurse during the Civil War
* 79%	81%	B.	a leader in helping slaves escape to the North
6%	6%	C.	the maker of the first American flag
3%	4%	D.	the first woman to fly across the Atlantic

Rosa Parks insistence on sitting in the front section of a bus in Montgomery, Alabama, in 1955 was part of a larger movement to protest

Gr. 8	Gr. 12		
5%	1%	A.	discriminatory prices and their effect on Southern and small farmers.
* 74%	90%	B.	official racial segregation.
10%	5%	C.	decreased support for public transportation.
10%	4%	D.	the assignment of black bus drivers to predominantly white residential routes.

These are some of the same students who were unable to tie these two facts together and discuss racial discrimination in the United States.

Certain peculiarities stand out in student responses to this question. Students tend to see racial unfairness as happening only to African-Americans in the U.S. And when they do discuss the treatment of African-Americans, it is generally in the past tense. Many comment that everything is fine now. As in the previous question, a surprising number averred that there is no racism (7 percent at Grade 8 and 3 percent at Grade 12). Many students saw racism as a condition that exists only in the South but never closer to home. Not one student mentioned the problems in Boston over the busing issue, but many brought up the civil rights marches in the South. The following responses from twelfth grade students show the pattern:

> In the South there are still racial prejudices. This is shown by the group the K.K.K. This group is founded solely on the belief that whites are the best and have the right to terrorize all other races.

> Yes – down in the South there is a strong K.K.K. movement against blacks. Here they still seem to live life like it was pre-civil war, especially in some deep south communities.

A few students mentioned housing discrimination, and a few drew on personal experience for examples discussing how they had been victims of racism. The weakest answers that could be regarded as having a kernel of relevance to the exercise admitted that racism and prejudice exist but omitted any examples in favoring of labeling these "wrong."

Instructional Implications

To form a coherent whole from numerous facts, students need exposure to overviews and practice making connections. Themes such as equality, liberty, the pursuit of happiness are inherent to American history and thought. Students should be prompted to follow through.

The teaching of current events in social studies classrooms should continuously relate the events of today with pertinent episodes from the past. Equal rights controversies are a daily part of the news, and students need to recognize them as such and relate them to earlier struggles for equality.

Treatment of new immigrant groups should be compared with earlier discriminatory treatment of the many groups who have come to our country. What are the commonalities? What are the differences? A strong need exists for building understanding about other countries and cultures in order to eliminate simplistic stereotyping.

Evaluation of Evidence

Guess a Year: Grade 4

Read the short story below and answer the question following it.

One afternoon, as Sarah was coming home from school, it began to snow. She hurried home, rushed into the house, and quickly pulled off her wet layers of sweaters and leggings. She placed her chalk slate on the kitchen table. The house was quiet except for the cracking of the fire. The smell of baking bread filled the room. Mother cooked all their meals over the fireplace, and Sarah thought it was the warmest place in the world.

Sarah sat down in the rocking chair and picked up the patchwork quilt that she was sewing as a holiday present for her teacher. Her smiling face glowed in the light of the kerosene lamp as her small fingers worked colorful stitches into the soft cloth.

Guess a year in which this story might have taken place. What evidence in the story was most helpful to you in making your guess?

This question, given to fourth graders, put students to the test in evaluating evidence. Much depended on the selection of evidence as well as the amount of evidence used. If a student emphasized that it was snowing and that Sarah wore a sweater, then almost any year would be an appropriate response. Students had to activate prior knowledge in order to judge which evidence was appropriate to use and to link the evidence with their knowledge of historical periods.

In this question, the evidence is used to support an answer without actually being proof of that answer. For example, one piece of evidence may provide one possible response, but two or three more pieces may support or invalidate that response. The best way to answer this question was to utilize as many discrete and distinct pieces of evidence as possible and use the accumulated evidence to make a judgment about the year in which the passage took place.

More than two-thirds of the students were able to select an appropriate year. (We considered anything before 1910 as acceptable, although a closer reading would further limit the dates.) One-half of the students who answered correctly supported their answers with strong evidence (two or more pieces).

Despite the good showing of the majority, one-third of the respondents were not able to answer correctly. Ten percent answered "winter," and 9 percent gave 1950 or after as their answer. A significant number said 1978 because "It was snowing" (no doubt a result of administering the test in April 1988, a few months after the tenth anniversary of the 1978 blizzard).

Overall, students performed better on the open-ended format than on similar multiple-choice questions. The following paragraph was the first paragraph of the equivalent exercise in the multiple-choice test. It was eliminated from the open-ended selection for obvious reasons.

> Sarah Johnson and her family traveled westward in a covered wagon after the government began its free land program. People who were willing to settle on the frontier were offered land for free. The Johnsons had become a part of the great pioneer movement. Now they were settled in a prairie town, and Sarah could go to a real school everyday.
>
> Which activity is the BEST clue that this story took place in the past?
>
> | | | |
> |---|---|---|
> | 24% | A. | going to school |
> | 5% | B. | baking bread |
> | * 56% | C. | cooking meals over a fireplace |
> | 15% | D. | sewing a patchwork quilt |

Student performance was worse yet when the question was stated in a negative manner.

> Which of the following items is NOT evidence that this story took place in the past?
>
> | | | |
> |---|---|---|
> | 17% | A. | chalk slate |
> | 13% | B. | covered wagon |
> | 24% | C. | kerosene lamp |
> | * 45% | D. | rocking chair |

Instructional Implications

There may be some doubt as to when children can truly understand time and chronology and that the world existed before them. However, the results of this question indicate that most fourth grade students are able to fathom that certain historical experiences came before others and they are able to place events in a context outside of their own. One way of enhancing this ability in children would be to place it in a familiar context, e.g., before your grandparents were born.

By stressing that what we have today are products of a cumulative process, teachers could point to the developmental dimension of history. Delving into the history of things and activities that already interest students for other reasons would free history from its reputation as a "school subject." The history of ice cream in the United States for example, might engage many children. Brought to the United States from France by Thomas Jefferson, ice cream became the common food we know through a fascinating series of technological and social changes.

By concentrating on the individual in history in the early elementary grades, students can begin to identify with historical personages and view them as real human beings rather than dead names.

Eisenhower at Little Rock: Grades 8 and 12

Read the passage below about an action taken by President Eisenhower; then answer the question that follows.

President Eisenhower Intervenes at Little Rock

In the fall of 1957, trouble erupted in Little Rock, Arkansas, where the Supreme Court had ordered the city to admit a few Negro children to Central High School. Governor Orval Faubus of Arkansas intervened by calling out National Guardsmen who prevented blacks from entering the school. When he later withdrew the Guard, mobs of whites blocked the school entrance without interference by police and threatened the children. At this point, President Dwight Eisenhower, acting to uphold the authority of the federal courts, ordered army troops to Little Rock to guarantee the black children access to Central High. Excerpts from Eisenhower's radio message to the nation explaining his action appear below.

It is important that the reasons for my action be understood by all our citizens.

As you know, the Supreme Court of the United States has decided that separate public educational facilities for the races are inherently unequal and therefore compulsory school segregation laws are unconstitutional.

Our personal opinions about the decision have no bearing on the matter of enforcement; the responsibility and authority of the Supreme Court to interpret the Constitution are very clear. Local Federal Courts were instructed to issue such orders and decrees as might be necessary to achieve admission to public schools without regard to race and with all deliberate speed....

The very basis of our individual rights and freedoms rests upon the certainty that the President and the Executive Branch of Government will support and insure the carrying out of the decisions of the Federal Courts, even, when necessary, with all the means at the President's command.

Unless the President did so, anarchy would result.

There would be no security for any except that which each of us could provide for himself.

The interest of the nation in the proper fulfillment of the law's requirements cannot yield to opposition and demonstrations by some few persons. Mob rule cannot be allowed to override the decisions of our courts....

Was the President in favor of school desegregation, did he oppose it, or can you not tell about his views from the passage?

Cite several pieces of evidence from the passage to support your answer.

Since what was *not* said in this passage had a bearing on what was said, the exercise called for relatively sophisticated thinking. In a context that allowed for several "right" answers, the respondents dealt with ambiguity and equivocation, and a large number came through with flying colors.

At Grade 8, 56 percent successfully used evidence from the passage to support their conclusions about Eisenhower's stance. At Grade 12, 79 percent were able to support their answers using evidence from the passage. Many students (16 percent at Grade 8 and 33 percent at Grade 12) reasonably concluded that President Eisenhower took particular pains to appear neutral and objective. Others with equally reasonable arguments, successfully defended the position that the President was for desegregation (31 percent at Grade 8 and 22 percent at Grade 12) or against it (9 percent at Grade 8 and 14 percent at Grade 12). A few students activated prior knowledge and offered generalizations such as "Eisenhower never took a stand on anything."

Certain students who did poorly on this exercise apparently misunderstood the meaning of the word desegregation. They thought it meant segregation. For example:

> He opposed desegregation. He said that it was unconstitutional to have schools like this. He said that all races are equal and that is how they should be treated. He said you should let children in public schools no matter what their races.

Some students were able to avoid their uncertainty with the vocabulary by not using the word "desegregation" in their responses. "He felt that the black

kids should be allowed to go to the school with the white kids." This eighth grade boy has successfully eliminated the problem of the meaning of desegregation by avoiding the word altogether.

Instructional Implications

Students should be exposed to a wide range of primary source materials describing an historical event or a series of events. They should be taught to observe differences in reporting the same incident, in drawing conclusions, and in the tone of the piece. They should try to understand who the audience for the different points of view may be. Along with the use of primary sources, role playing gives students a personal interest and deeper understanding of historical personages.

A view often expressed by the Advisory Committee is that students lack the appropriate vocabulary skills for social studies. Primary source materials would serve as a good introduction to that vocabulary, but an introduction is not enough. Teachers should make an effort to integrate a particular vocabulary into the curriculum and to use that vocabulary in more than an end-of-chapter test. We can see in student use of the word apartheid in responding to another question that students do understand terms when they are exposed to them often enough.

Logbook of Christopher Columbus: Grades 8 and 12

The passage below was adapted from the logbook (daily journal) kept by Christopher Columbus on his famous voyage. The excerpt covers two days after Columbus had reached land. Read it and answer the question that follows.

Friday, October 12. We waited a day and then reached a small island. When we landed, we saw very green trees, much water, and fruit of various kinds. I took possession of the island for the King and Queen of Spain.

Soon many inhabitants of the island assembled. I gave the island people many small gifts such as red caps and glass beads, which they hung around their necks. The gifts gave them much pleasure. It was a marvel to see how friendly they became. Afterwards, they swam to the ships and brought us parrots, cotton thread in balls, spears, and many other things.

Some of them paint their faces, some their whole bodies, some only around their eyes, and some only their noses. They do not know much about weapons, for I showed them swords, and they took them by the blades and cut themselves. They have no iron. I believe that they would easily be made Christians, as it appears to me they have no religion.

Saturday, October 13. They came to the ship in small canoes made out of tree trunks. They row them with a paddle, and they travel very fast.

I took the trouble to find out if there was gold on this land. I saw that some of them wore a small piece of gold hanging from a hole in the nose. I learned about an island to the south where there is a king who has much gold. They did not want to make the trip there though.

Four conclusions from the logbook are presented below. Describe the evidence Columbus had (or probably had) for each conclusion *and explain why the evidence is strong or weak.* **(Strong evidence is very convincing evidence.)**

One of the key elements in critical thinking is the ability to assess ideas or evaluate sources of information. The exercises based on Columbus' logbook was designed to test student performance in that area.

On the whole, students had very few difficulties selecting appropriate evidence from the passage. However, when evaluating the evidence as weak or strong and explaining why it had been so evaluated, students encountered problems on the positive side. In many instances, the most correct response may have seemed too obvious, particularly for a test. For example, in the case of an eyewitness account, the evidence would be strong because it was an eyewitness account. Students seemed to want a more esoteric explanation than because a presumably reliable source saw it. In looking for something less obvious, students often fell into the rhetorical trap of circular reasoning: the evidence is strong because it has strength. This indicates that students had problems distinguishing between the evidence and the source of the evidence.

When evidence was considered weak, however, many respondents were adept at pointing out what it lacked to make the logic of the conclusion faulty.

Conclusion 1: The gifts gave them much pleasure.

The evidence for this question is the statement that the native people became friendly and brought gifts in return. This is strong evidence because it is an eyewitness account. Another acceptable explanation is that if they hadn't liked the gifts, they would have acted differently.

By inference from the lack of hostile actions, students could conclude that the gifts were welcome. The most common response at both grades was that the "evidence is strong because they became friendly." Some 24 percent of the eighth graders and 19 percent of the twelfth graders were able to identify an eyewitness account as strong evidence. For example:

Evidence: They became very friendly after the gifts.

Strong. **Why:** Because it was witnessed by the whole crew.

Nine percent of the students at each grade, however, were able to offer good explanations as to why they considered the evidence weak. For example:

Evidence: They donned the gifts given to them.

Weak. **Why:** They may have just been being polite.

About half the students (49 percent at Grade 8 and 56 percent at Grade 12) identified the evidence as strong but either restated it or were not able to describe why it was strong.

Evidence: They became friendly.

Strong. **Why.** It states that they were friendly after the gifts were given.

Conclusion 2: They do not know much about weapons.

There are two appropriate responses here. The first accepts the author's conclusion that the native peoples cut themselves with the swords because they did not know much about weapons, and respondents taking that position held that the evidence is strong because it is an eyewitness account. A variation of the theme is that the evidence is strong because people would not deliberately hurt themselves.

Evidence: I showed them swords and they took them by the blades and cut themselves.

Strong. **Why:** Because no one in his/her right mind would grab a blade if they knew it would cut them.

The second plausible response doubts the author's conclusion because the narrator only discusses European steel weapons and does not consider that the native people might have their own form of weaponry. The narrator also

overlooks his own statement that the native people brought them spears as gifts. The evidence would be strong if the statement had been that they did not know much about European weaponry, but because it is referring to weapons in general, the evidence is weak.

Evidence: They grabbed the sword by the blade.

Weak. **Why:** Although they may not know about swords, they still may know about other weapons like spears.

Twenty-six percent of the eighth graders and 13 percent of the twelfth graders presented good interpretations of why the evidence was strong; 18 percent at Grade 8 and 23 percent at Grade 12 gave good explanations for why the evidence could be considered weak.

Conclusion 3: They would easily be made Christians.

The evidence is weak because the narrator has not made an investigation of the nature of their religion but has assumed that they had none and would be likely to adopt one. The students did very well with this question. They seemed very attuned to forms of religious bias. The eighth graders performed slightly better than the seniors in evaluating evidence (45 percent of the eighth graders giving a good explanation for weak evidence and 42 percent of the seniors doing likewise).

Evidence: None.

Weak. **Why:** Christopher said it *appeared* they had no religion. He was not sure.

Evidence: No apparent religion.

Weak. **Why:** Columbus made little effort to discover their religion.

Conclusion 4: There is a king who has much gold.

This is the most problematic of these questions since the evidence could be viewed easily as both weak or strong, and the evaluation of it is purely subjective. One could argue that the evidence is strong because there is an eyewitness account of a man with gold. On the other hand, it is a very small amount of gold, the inhabitants are reluctant to go where the gold is said to be, and the source is untested. Most of the students said that it was weak evidence. Here 34 percent of the eighth graders and 35 percent of the seniors gave a good explanation for why the evidence was weak, while 6 percent of the eighth graders and 9 percent of the seniors offered good evaluations of strong evidence.

Evidence: I learned (from the inhabitants)

Weak. **Why:** The only evidence Columbus had was the word of the people of the island who didn't want to make the trip to the "gold island" themselves.

Evidence: He saw them holding it (gold).

Strong. **Why:** They say gold hanging from their noses.

The response rate to all four parts of this question was very high. Despite student inability to evaluate evidence particularly well, they seemed confident in their ability to handle the requirements of the question. Since the success rate was nearly the same at both grade levels, it may be that students pick up their evaluation skills before eighth grade and many do little to broaden them in high school.

Instructional Implications

Students tend to prefer a fixed answer based on surface evidence. This may stem from the practice of answering the questions at the end of a chapter by searching through the chapter and finding the answer. Students are used to finding clear-cut answers in the text but apparently do not search out and evaluate less obvious evidence to support less clear-cut contentions. One

method of broadening students' ability to evaluate evidence is to use primary source materials. Students could be given many different selections describing the same event and asked to characterize the sources. Many students, as well as adults, share the misconception that if it's in the book, it must be true. Because textbooks are generally voiceless and ostensibly unbiased, students accept lessons as truth. They are unprepared to evaluate the printed word because they are accustomed to accepting it unquestioningly. Among other things, this is poor training for future readers and consumers. As is not the case with other academic subjects, there is a plethora of primary source materials available in social studies.

Evaluation of source material is not a discrete skill particular to social studies. In any discipline, students must be prepared to consider the source. An astute reader can recognize fraud, deceit, and propaganda in a text, while a lazy one may be victimized. Students should begin to ask "What does the author hope to gain by this?" The use of primary source materials rather than sanitized textbooks would allow students the materials to ask this question.

Primary source materials expressing different points of view about the same historical events need to be infused into the teaching of history. Students need to learn how historians decide what becomes history, to again examine and evaluate evidence. They also should be made aware that history as written is largely interpretive, tentative and changing. Successive investigations of the Salem witch trials for example, illustrate how an explanation of events has changed by historians in different periods.

Notes

Conclusion

The social studies open-ended questions confirm the findings of the multiple-choice portion of the Massachusetts Educational Assessment Program in social studies: that students generally know diverse facts but lack an understanding of how to apply those facts to form a coherent whole. Students are not able to transfer what they know to what they see around them.

Students can be taught to think about social studies in a way that integrates all aspects of it into their own lives. By realizing that what happened two hundred years ago affects the way we live today, students can begin to view history as a living, breathing discipline. They can begin to think about the world as a place of many cultures and ways of living, none being the best or most nearly perfect.

Social studies offer an excellent opportunity to teach students how to operate in the gray areas of life between the extremes of "Anything goes" and "There is only one right answer." Acquiring the habit of trying several interpretations will be useful to them as will the habit of reopening questions if new evidence appears. The legitimacy of differing answers depends upon the logic with which they are defended. Students need practice in judging probabilities where no certainty is guaranteed.

One reason why no final certainty can be guaranteed is that historical, political, economic, and even geographical changes occur – some deliberate and some accidental, some cumulative and some terminal. Imparting skill in tracing change is one goal of social studies. Making students realize the importance of any one set of conditions to those who lived the experience is another.

There is a tendency to homogenize and oversimplify history and social studies in order to make it more palatable to all interest groups. In so doing, we have destroyed the vibrancy and humanity of the past and created a spiceless pabulum that is undeniably boring to students. There is a need to desimplify and rehumanize history in order to reveal the human complexity that motivates events.

Many feel that social studies education is citizenship education; yet according the student responses on the questionnaire portion of the Massachusetts Educational Assessment Program test, students believe this area to be lifeless and boring. Approximately 60 percent of eighth and twelfth grade students find social studies to be "mainly memorizing." This surely is poor training for future voters. By allowing students to live and act in a foundation of democratic principles, students would prepare to be productive citizens while learning about their country and world.

Since change, uncertainty, and diversity enter into the subject matter of social studies, opportunities arise for personal lessons in social dynamics. Brainstorming in class, for example, or analyzing the consequences of different leadership styles can lead to a sense of how ideas may be properly exchanged rather than dictated and regurgitated. Socially predictable points of conflict as well as socially provided means of peacekeeping will appear both as subject and as primary experience.

The Massachusetts Council for the Social Studies and the Massachusetts Department of Education have produced jointly a very thorough and helpful publication called *Excellence in Social Studies Education: The Foundation of Active Citizenship*. This publication, dated February 1989, discusses resources, curricula, teaching strategies, and age-appropriate activities for social studies. It is recommended reading for all conscientious teachers of social studies.

Postscript

The Social Studies Advisory Committee members were asked to comment on the results of the open-ended social studies tests.

Patricia Dye states:

> These questions were most valuable in determining many results from social studies programs within the state. Not only did they give students a chance to express themselves, to demonstrate their thinking processes, but they were less intimidating than questions seeking a "right" answer. Use of such questions should be a part of every curriculum evaluation—they become a way for teachers to measure how students have learned or not learned what has been taught. In many cases, if student achievement is less than anticipated, these types of questions give valuable clues as to why students have misconceptions or draw illogical conclusions. Such analysis should eventually help in changing materials and methodology toward the improvement of student learning.

June Coutu writes

> ...Our students have to have been rewarded in many areas for coming up with surface answers. Whether it be the teacher who gives only objective questions, or the teacher who assigns complete sentence answers, but never reads them through, or the teacher who expects essays, but grades them on the basis of the number of correct "facts" included, all of these are telling students that they need not go into any depth in order to win full credit for their answers....
>
> ...We are failing our students when we do not teach them how to question, how to analyze, how to think. Because we don't use that little word—Why?—more often, we appear to be producing a generation of students who do not question the veracity of what they are told, the reasons why they act a certain way, or the morality of what they are doing. How will we ever produce our future scientists, historians, and

leaders if children aren't taught to analyze and question what they read in school?

I firmly believe that this is another area, like reading in the content area, where every academic classroom teacher must feel the responsibility to teach. If I receive an answer in a U.S. History class that is obvious, I must inquire further. My students must pick up from me the habit of digging, and digging, until there is nothing left to pick apart. The science teacher must do his part too. If he assigns a homework lesson that asks for explanations, then he must read these and grade down incomplete answers. In the same vein, English teachers must get away from questions like "Where does the 'Merchant of Venice' take place?" (no joke) and instead require students to ask why Shylock acts the way he does. And if they give a surface answer, he must force them to do better.

Jane Rowe discusses the implications of the open-ended questions.

Implications of these results might be that students ought to be exposed to more open-ended class discussions (as opposed to typical factual recall or simple inferential questions found in most textbooks), with an emphasis on the students' giving reasons to support their conclusions – i.e., citing supportive evidence or explaining their reasoning processes. In the long run, a focus on thinking strategies may be more valuable and widely applicable to real-life situations than specific content. Likewise, more emphasis might well be placed on reading and writing in the content area, especially open-ended writing to a prompt.

John Hassan suggests uses of open-ended questions.

Open-ended questions should be used in all classrooms as a way of getting the child to think and apply what is learned in the classroom. This may be done through essay tests, open-ended homework assignments, and a short-term project in which a student has to draw conclusions from a particular situation – i.e., a current event. This should be started at the elementary grades and expanded upon as students progress. More work should also be done in having students connect what they are studying to current situations. When the geography of an area is studied, also connect the present-day situations of that particular area and have the students see the connection between geography and a current event.

Mary Anne Wolff, concerned over student passiveness, writes:

> Some of the results of the open-ended assessment were troubling because they indicated that many students may be suffering from "learned helplessness" when it comes to social studies. Students did not seem inclined to seek out many alternative explanations for social events or trends. They seemed reluctant or unable to make connections among concepts and ideas across time and space. There is evidence of a lack of in-depth understanding of certain concepts, such as "checks and balances" and "prejudice." They did not readily apply these concepts to current or new contexts. Their understanding of other nations, in particular the Soviet Union, also appeared shallow. They had a sense it is "bad," but their understanding of the actual historical and current situations were so vague that they frequently confused Communism and Fascism and they tended to use "Russian" or "Communist" as labels for anything that they would regard as negative. Given the complexities of international relations today, this kind of stereotypical thinking on the part of students is dangerous.

Virginia Ahart finds the open-ended questions indicate several areas which could and should be improved:

> **Reading and writing in the content area**. Students have difficulty processing reading material beyond the mere surface content. Many junior high teachers find students frustrated in their attempts to read social studies texts as it becomes a new kind of reading for them.
>
> In addition some of the answers to those questions requiring explanations indicated that students might know some facts needed to answer, but were unable to express themselves in a complete and correct manner.
>
> **Thinking skills**. While students seem to have an idea of where to find information (as evinced by results of research skill questions on the multiple-choice part of the test), how they use information for problem solving, and even how they analyze the information, could be improved. Students need to be encouraged to think critically and not just "parrot back" facts.
>
> **Thinking thematically.** Students seem to isolate events into given time periods. To trace ideas through several periods in history is difficult for many. This is not to suggest history should be taught strictly thematically, but to indicate that whenever possible ties from one period to another should be made.

Connecting Social Studies disciplines to each other. Ties need to be made between history, government, geography, economics, etc. An example would be the inability of students to tie the concept of checks and balances to current events.

Appendix

Fact and Opinion

Reporting Category: Types of Information
Grade Level: Fourth

Think about your experience in school. Write three statements of FACT about your school or school experience. Then write three OPINIONS (or value judgments) about your school. Use complete sentences.

Percentages of students who gave 1, 2, or 3 good facts and opinions:

	Fact	Opinion	Neither
	%	%	
1 good	27	21	
2 good	28	24	
3 good	36	37	
None	10	3	
Irrelevant/Blank/ I don't know			14

(Our guidelines in scoring this question can be inferred from the following examples:

Clear fact: Recess is at 10:00 a.m.
Clear opinion: Mrs. Jones is pretty.
Questionable: I feel..., I think..., I hate..., My favorite...)

Types of statements given by students:

	Clear Fact	Clear Opinion	Questionable
	%	%	%
Fact #1	60	20	10
Fact #2	64	15	7
Fact #3	61	15	9
Opinion #1	2	53	32
Opinion #2	3	51	31
Opinion #3	12	49	25

Examples:

Clear Facts

1. Only one water bubbler out of two works.
2. There are four different flights of stairs.
3. The front of the school is made out of brick.

Clear Opinions

1. The stairs are slippery.
2. The classrooms are small.
3. The fold of the build doesn't look nice.

Questionable Opinions

1. School does help you learn.
2. In school we do a lot of work.
3. Activities aren't as fun as they could be.

Questionable Opinions

1. I think except for spelling and reading school is interesting.
2. I don't like the way school is taught.
3. I think some decisions made by teachers are not good.

Fence Building

Reporting Category: Problem Solving
Grade Level: Fourth and Eighth

Suppose you and three other persons are given the job of building a fence around a yard. You are in charge. Describe how you would divide up tasks to get the job done efficiently.

	Grade 4	Grade 8
Category of Response	**%**	**%**
Tasks divided, different people doing different things, logical sequence of tasks	10	11
Tasks divided by ability and interests	3	6
Tasks divided, but some workers are idle at times	13	12
Vague concept of plan but with assigned tasks	17	13
Logical plan but no concept of people (more or fewer than 4)	10	6
Each person builds one side of fence	10	13
Vague answer – e.g. divide the work evenly	12	20
Irrelevant/Blank/I don't know	9	4
Those who included only 3 workers	16	19

Grade 4 Examples:

I would ask the strongest man to bring in the heavy boards. I would ask the person who had experience in geometry to do the measuring of the fence. And I would ask the person who has worked with nails and building materials to build the fence. And if no one wanted to paint it, I would take the job.

I would split it by stronger people and by weaker people and have the strong people help the weak people.

Ten people for holes. Ten people for sawing, five people for painting, five people to make the land smooth, five people for putting cement in the hole, four people putting on the bars.

Find the perimeter and divide by four.

Grade 8 Examples:

I would find out whose good at doing what and I would divide the tasks like that. If they do not know how to do any of the necessary work, I would then ask who would like to do a certain tasks or thinks they can do it.

I would try to have everyone do the same amount of labor involved with the task. One person would dig the holes for the posts and another would place the large posts in. The third would nail the strips together. We would rotate so that everyone would do the same amount.

Find the size of the yard and divide it by three. Have each person do their share.

Farming and Technology

Reporting Category: Cause and Effect
Grade Level: Fourth

As better farm machines were developed, other changes took place in American society. How did the development of better farm machines change the way people got food for their families?

Category of Response	%
More stores because fewer people farm	12
Food can be harvested faster & easier/bigger farms	52
Lower prices because more food is grown	2
Any combination of the above	5
Equates with pictures from previous question	9
Irrelevant/Blank/I don't know	19

Examples:

People started having stores. Families were selling their crops and getting money in return. Many opened their own stores.

Less people could grow more food so some people stopped growing it and bought it.

It changed the ways people got food because now we get it faster and the food is fresher because if people were picking food from a big field, it would take them a long time to get to the other end and the food would be rotten by then.

Crops were planted faster. It was easier so more people would take farming for a job.

As farming machines got better, the food was getting better. When the food got better, the people got healthier.

The machines help grow more varieties of food, better. The farmers shipped the food they grow to supermarkets. Long ago, there weren't supermarkets. Unlike long ago, today we do have supermarkets so we can buy food.

How better farm machines changed the way people got food is that we get food faster. When horses plowed the fields, it took awhile to do it. Tractors sped up the process. It took less time than the horse. The modern farm machine now plows whole section. (Uses the pictures to formulate the answer.)

Farming and Technology II

How did better farm machines change the kinds of jobs people held to make a living?

Category of Response	%
Equipment construction, sales & maintenance; food processing; trucking	6
Generic – time spent farming can be spent doing other things	13
Workers needed to run machines	5
Jobs were harder to find, less people needed to run machinery	7
Machines changed farmer's life making it faster and easier to farm/more leisure	24
Generic – machines do it instead of people	19
Combination of above	2
Irrelevant/Blank/I don't know	24

Examples:

Better farm machines changed the kinds of jobs people held to make a living because less people were needed to run them so a lot of people got jobs in cities.

Not as many people had to work at farms so lots of people lost their jobs.

Not as many people had to work on the farm, so the workers went to the city.

Better farm machines changed peoples jobs by doing most of the farm work so farmers had to get new jobs.

At first you didn't need to be trained. For the tractor you needed to know how to drive. Now you have to be trained.

With the new machinery, the horses didn't get tired out. With the new machines, the sun was not giving people headaches by beating on their heads.

Constitution

Reporting Category: Thematic History
Grade Level: Eighth and Twelfth

The year 1987 was the year of the Constitution in the U.S. An important aspect of that document is the system of checks and balances it builds into our government. Give three examples of checks and balances in practice that occurred in 1987. Explain how each is an example of checks and balances.

Category of Response	Grade 8	Grade 12
	%	%
3 good examples w/ explanations	3	3
1 or 2 good examples w/ explanations	8	12
3 good examples w/ no explanations	1	2
1 or 2 examples w/ no explanations	4	8
General explanation, e.g. Pres. can veto a bill	7	9
Lists 3 branches of government	4	5
Irrelevant/Blank/I don't know	73	61

Grade 12 Examples:

1. Senate: refused Bork appointment to the Supreme Court.
2. Executive: their powers were questions in the Iran Scam trial.
3. Senate: Ginsburg was refused appointment to the Supreme Court because they found out he was smoking marijuana.

1. Making out your income tax form, balancing your bills, checks, etc. from that year.
2. Gasoline, food, clothing, went up. Trying to balance your budget with the money you have.
3. The stock market crash – because if you invest in something from your stock, you make out a check. The market goes down, the check bounces, and you lose your investment.

1. Taxes are taken out of checks for the government.
2. Balances of the checks are totalled up for the days and hours the people worked.
3. There are a lot of things taken out of a check. Taxes for instance, now they take close to ten and twenty dollars out of checks.

Grade 8 Examples:

1. With Contra Aid, the President had to get congressional approval.
2. In the Iran Contra Affair, the Supreme Court and Congress investigated the President's actions.
3. When the I.N.F. Treaty was going to be signed, Congress had to approve it.

1. One example of checks and balances is taxes.
2. Another example of checks and balances is how many representatives are in a state by a count of the people.
3. The last example of checks and balances is to find or show how much you are paying for an item, what the government takes from you in moneywise.

1. They give money for people who work hard.
2. Welfare checks are given to people who can't afford a baby-sitter, so they can't go to work.
3. When you go a bank. you have to give them a lot of information. You can't cash somebody else's check.

1. A check is like money, bring it to the bank either cash in or take out.
2. A balance is keeping track of when you put in or take out money.
3. Balances keep track of your money.

Rights of Citizenship

Reporting Category: Thematic History
Grade Level: Eighth and Twelfth

Even though citizenship may have been granted to a particular group, history shows that many of the group's rights as citizens are achieved only piecemeal over time.

What evidence from U.S. history is there to support the statement above?

	8	12	8	12
	Well-developed Using Examples		No Development	
	%	%	%	%
African-American	23	24	9	4
Women	2	4	1	0
Native American	0	1	0	1
Asians	0	1	0	0
Immigrants	2	8	2	2
Other	3	2	3	4
Combination	2	8	4	1
No Evidence to support the statement.			2	2
Irrelevant/Blank			45	38

Grade 12 Examples:

Throughout history, blacks were never treated fairly. At first, they were brought here as slaves. Finally, they were freed by Lincoln, but now they could not live or work anywhere. As time goes by, they are more accepted as humans and in the 1950's they can now eat at white person restaurants, and go to school with white people because of Brown vs. Board of Education (a Supreme Court case). By law, they are equal, but there are still some people who will always feel superior. May someday they will be fully equal and thought so by all.

Over the years, immigrants have come to this country and gained citizenship over a period of time. However, people through prejudice have kept many well deserved rights from them. The light in the tunnel is that as decades go on and generations pass, the prejudice is fading and people are gradually accepting them as equals with equal rights.

Grade 8 Examples:

One group that suffered this were the Blacks. Even though they were given citizenship, they were still discriminated against. For example, they had to give up their seats on buses to whites, they couldn't eat in some restaurants, and they had separate bathrooms from whites which were usually dirtier. It took a long time for these things to be changes and even now, Blacks don't have equal rights in some cases.

Even though women were citizens, they still didn't have many rights a long time ago. They couldn't get jobs that they were qualified for, and they weren't allowed to vote. There were many other things that they couldn't do too. Gradually, they started to get more and more rights. Nowadays, men and women are considered equal.

United States Affairs

Reporting Category: Current Events
Grade Level: Eighth and Twelfth

Is there a place in the world (outside the U.S.) where people are not treated fairly because of their race? If so, where is it and what kind of unfair treatment happens there?

Results

Responses	Gr. 8	Gr. 12
	%	%
South Africa		
Accurate response	28	42
Inaccurate response	5	7
Other (including past examples)		
Accurate response	2	5
Inaccurate response	2	1
Ethnic/Non-racial		
Accurate response	9	9
Inaccurate	9	2
Africa		
Accurate response	6	7
Inaccurate	3	4
Generality – Where there are two races there will be racism.	5	6
No, there is no place in the world where racism exists.	7	2
Irrelevant/Blank	22	15

Grade 12 Examples:

In South Africa, the natives of that country are not treated in a fair or humane way by the government. They are not allowed basic human rights i.e., the right to assemble, the right to protest, or have a voice in the way the country is run. Anytime, day or night, any person may be picked up, hauled off to jail, and may not be charged for a crime until a later date.

Yes. In Africa the people that are the original people of Africa or the negroes are treated unfairly. This is called apartheid or slavery. White people have gone to Africa with large amounts of money. They then took hold of the economy of an undeveloped country and forced the inhabitants to do slave labor. These people are angry because they are poor. They are forced to serve white men. Their children are starving.

Cuba – If one is not a communist, like the rest of the government, one is treated unfairly. One will not have the same rights (even though one does not have many) as the ones who support the government. Even though it is against one's beliefs to do something wrong, one will still do it, just to have a chance at life. One must support the government or else one will not survive.

I find that more people are treated unfairly because of their religion rather than their race. But if there are people treated unfairly because of their race, I'd have to say it would be the Jewish and Hispanic race.

Grade 8 Examples:

In the Soviet Union, Jews are often treated unfairly. They are forced to stop practicing Judaism though many secretly do. If they apply for a visa (passport to leave the country) they lose their jobs and other items. Often they are turned down and have to stay in a country where they have no future.

In Russia, the Soviet Union, the Russians treat Americans as bad people. If American planes fly over the Soviet Union, they shoot the plane down.

In Ireland, it isn't really because of their race, it is because of their religion. The Catholics are in constant dispute with the Protestants.

In China, many people are suffering and have to go to war because of their customs and some of the children are targets for getting their parents money. They sell their children for money.

American Affairs

Reporting Category: Current Events
Grade Level: Eighth and Twelfth

In the U.S., are people sometimes not treated fairly because of their race? If so, give examples.

Responses	Gr. 8 %	Gr. 12 %
Blacks		
Examples	31	33
No examples	8	3
Native Americans		
Examples	0	2
No examples	0	0
Asians		
Examples	1	1
No examples	0	0
Whites (reverse discrimination)		
Examples	3	3
No examples	0	1
Combination		
Examples	7	16
No examples	2	4
There is no discrimination	7	3
Ethnic, national, or religious groups	5	9
Societal groups – e.g. women, handicapped, elderly	3	4
Vague generality	24	16
Irrelevant/Blank	9	5

Grade 12 Examples:

In the past many people were exploited because of their race. Especially blacks in the south. Today still some blacks in the South are exploited by private groups of people. The Klu Klux Klan is such a group who discriminate and castigate blacks. Another race which are treated unfairly are the American Indians. In the past, Indians once were a majority in the U.S. until the white people started coming over from Europe and taking over their land. Today, still many Indians are discriminated because they don't have jobs and can't go to school because of financial reasons. Also a good number of them have to live on run-down, unkempt reservations because they can't afford a house.

In the next town over from Swampscott where I live is a golf course country club. The club is very restrictive in allowing members. They are against blacks and Jews. There are now a few of each taken in as tokens due to the pressure society placed on the club.

Yes, I feel that a certain amount of prejudice sometimes still does exist. Although all of our laws are arranged to provide equality for everyone, at times a prejudiced attitude may remain. A good example of this is the racial riots which have been occurring at the University of Massachusetts.

There is definitely racism in this country. This is shown extensively in the Southern portion of the nation. THe blacks are the majority and do not hold many well-paying jobs, if any. Also there are immigrants (mostly Hispanic) who come to this country and are left jobless. This causes much turmoil with the upper class, the whites.

Yes, women hairdressers get paid less compared to a male. And young hairdressers have a hard time getting to a job because they say we need experience.

Grade 8 Examples:

Yes. This is true. For instance, one day last summer my father was working at his work. My father is one of the managers there and a black man came in looking for a job and the man that owns the business told them they already hired someone. So after they left, a white guy came in too and they hired him instead. My father asked the owner why he didn't hire them and he said, "they're black." So the next day my father called the two black guys and hired them anyway.

If you wanted a job as a policeman in a building and you were about 5'3" and weighed about 145 they would not give you a job because you are too *small*.

Guess a Year

Reporting Category: Evaluation of Evidence
Grade Level: Fourth

Guess a year in which the story might have taken place. What evidence in the story was most helpful to you in making your guess?

	Strong Evidence (2 or more items)	Weak Evidence (1 item)	No Evidence	Inappropriate Evidence
Responses	%	%	%	%
1800's	28	16	3	
1700's	5	2	1	
Pre-1700's	1	1	0	
1900 – 1910	3	3	1	
1919 – 1950				6
Post-1950				9
Winter				11
Irrelevant/Blank/ I don't know				11

Examples:

I would guess that the year would be 1850 because we hardly use kerosene lamps anymore, neither do we make our own quilts unless it is a hobby. We also don't cook our meals over a fire, we use a stove. Last but not least, we don't use chalk slates, we use chalkboards.

The story might have taken place in 1785 because Sarah's mother cooked over a fire. Sarah had a slate for her school work and Sarah sewed a quilt.

My guess would be 1902 because it said that they did all their cooking over the fireplace and I don't think stoves were invented back then.

1958 The part when her smiling face glowed in the light of the kerosene lamp as her small fingers worked colorful stitches into the soft cloth. That tells me right away that it would probably be 1958. I don't think 1988 people work colorful stitches into soft cloth but old people would do it.

1970 – leggings and sweaters that she had to take off.

Christmastime when it said it began to snow.

Eisenhower at Little Rock

Reporting Category: Evaluation of Evidence
Grade Level: Eighth and Twelfth

Was the President in favor of school desegregation, did he oppose it, or can you not tell about his views from the passage?

Cite several pieces of evidence to support your answer.

Responses	Gr. 8	Gr. 12
	%	%
President is for desegregation		
Uses appropriate evidence	31	22
Does not use evidence	8	3
President opposes desegregation		
Uses appropriate evidence	9	14
Does not use evidence	14	8
Can't tell from passage		
Uses appropriate evidence	16	33
Does not use evidence	6	5
Evidence with no opinion	3	7
Irrelevant/Blank/I don't know	13	8

Grade 12 Examples:

You really can't tell, but he seems to lean toward opposing desegregation.

He says personal opinions don't have any bearing on the matter of enforcement. The Supreme Court's decision must be upheld by the President and the Federal government otherwise

anarchy would result. He only states facts, he doesn't come right out and state his favoring either side, but I think that he opposes desegregation in the nation's schools by the way he stresses that it is the Supreme Court's decision and not his own.

President Eisenhower was in favor of desegregation.

President Eisenhower supported school desegregation. I feel that this statement is true because after the Supreme Court issued the decree to allow those students into Central High School and mobs of whites blocked the entrance, President Eisenhower ordered army troops to protect the students. He also said, "...without regard to race..." students should be able to attend any high school they wished to receive an education.

In my opinion, he was against school desegregation.

He didn't agree with what was happening, but there was no way he could change the Supreme Court's decision.

Grade 8 Examples:

You cannot tell if President Eisenhower was in favor of desegregation.

The reasons you can't tell are he had army troops bring the kids in. And the he went off and said that he only did it for the constitution. So you really cannot tell if he's for it or not.

Yes, he was in favor of blacks attending schools with whites.

1) He ordered troops to protect the blacks. 2) He explained that his personal opinion had no bearing on the enforcement. 3) He guaranteed the Negro children's safety.

I think he opposed it.

This can be proven when he said that his personal opinions couldn't interfere, and he had to do what the law said. Also, in his statement when he said that had to be understood by all people hinting that he really didn't want to do it, but he had to.

I could not tell his views from this passage.

I was not sure how the president felt because he was just doing his job fairly and not to be unconstitutional. Plus he said, "Our personal opinions about the decision have no bearing on the matter of enforce; the responsibility and authority of the Supreme Court to interpret the constitution are very clear." What I got out of it was that he might not like the Negroes going to the school but he has to do his job so he obeys the constitution.

Logbook of Christopher Columbus

Reporting Category: Evaluation of Evidence
Grade Level: Eighth and Twelfth

Four conclusions from the logbook are presented below. Describe the evidence Columbus had (or probably had) for each conclusion and explain why the evidence is strong or weak. (Strong evidence is very convincing evidence.)

Conclusion 1: The gifts gave them much pleasure.

Responses	Gr. 8	Gr. 12
	%	%
Strong/good explanation	24	19
Weak/good explanation	9	9
Strong/restates evidence as explanation	24	38
Strong/poor evidence	25	17
Weak/poor or no explanation	13	6
Irrelevant/Blank/I don't know	6	12

Grade 8 Examples:

Evidence: They became friendly and gave them gifts.

Strong. **Why:** If they didn't like the gifts, they probably would have attacked them.

Evidence: He gave them such things as red caps, glass beads.

Strong. **Why:** They found much pleasure.

Grade 12 Examples:

Evidence: They became friendly and hung them around their necks.

Strong. **Why:** They actually saw their change to happy.

Evidence: The natives immediately used them and offered gifts in return.

Strong. **Why:** This is a common way for people to show pleasure and appreciation.

Evidence: They became friendly.

Strong. **Why:** If they didn't like the gifts, they'd have killed them.

Evidence: They became friendly and began to give gifts themselves.

Weak. **Why:** They had a positive reaction to the gifts, but what they did with the gifts among themselves was not mentioned.

Conclusion 2: They do not know much about weapons.

Responses	**Gr. 8**	**Gr. 12**
	%	%
Strong/good explanation	26	13
Weak/good explanation	18	23
Strong/restates evidence as explanation	23	33
Strong/poor explanation	16	8
Weak/poor explanation	8	11
Irrelevant/Blank/I don't know	9	13

Grade 8 Examples:

Evidence: They grabbed sword blades.

Strong. **Why:** It doesn't take much knowledge to see why a sword is dangerous.

Evidence: They grabbed the swords by the blades.

Strong. **Why:** Because they cut themselves.

Evidence: They grabbed sword blades and cut themselves.

Weak. **Why:** They had given the strangers spears so that shows they know how to use them.

Grade 12 Examples:

Evidence: They cut themselves on the blades of the swords.

Strong. **Why:** It's not hard to see what the dangerous end of a sword is.

Evidence: He showed them swords. They took them by the blades.

Weak. **Why:** The fact that they have no knowledge of European weapons doesn't mean they don't know of weapons.

Conclusion 3: They would easily be made Christians.

Responses	**Gr. 8**	**Gr. 12**
	%	%
Weak/good explanation	45	42
Weak/poor explanation	25	26
Strong	16	10
Irrelevant/Blank/I don't know	13	22

Grade 8 Examples:

Evidence: They have no religion.

Weak. **Why:** He hasn't been there long enough to know.

Evidence: They had no visible religion.

Weak. **Why:** Columbus didn't know the people's language. They could have considered him a god. They didn't practice their religion in front of him.

Evidence: They seemed to have no religion.

Strong. **Why:** When you first hear about God you believe it. They know nothing else to believe in. Why not Christianity?

Grade 12 Examples:

Evidence: The belief of Christopher.

Weak **Why:** Because it appears they had no religion doesn't mean that they would become Christians. They might not like the religion.

Evidence: They had no religion.

Weak. **Why:** Columbus assumes they want religion.

Evidence: As it appears to me they have no religion.

Strong. **Why:** If they have no religion, then it would be easier to make them accept Christianity. (They would not have to give up a former god.)

Evidence: They looked up to Columbus.

Strong. **Why:** They were very gullible.

Conclusion 4: There is a king who has much gold.

Responses	Gr. 8	Gr. 12
	%	%
Weak/good explanation	34	35
Strong/good explanation	6	9
Strong/restates evidence as explanation	15	9
Weak/poor explanation	29	24
Irrelevant/Blank/I don't know	15	23

Grade 8 Examples:

Evidence: He saw them holding it.

Strong. **Why:** They saw gold hanging from their noses.

Evidence: He learned about a king with gold.

Strong. **Why:** Because the natives insisted there was gold and they were wearing it so there must have been.

Evidence: They told him about a king with gold.

Weak. **Why:** Because this was by word of mouth.

Evidence: Someone told him about a king with gold.

Weak. **Why:** They didn't want to make the trip there, and they only possessed a little.

Grade 12 Examples:

Evidence: Some of them wore a small piece of gold hanging from the nose.

Strong. **Why:** If they didn't have gold, they wouldn't be wearing it. They told him of a king who has much gold.

Evidence: He heard it.

Weak. **Why:** He doesn't know if the rumor is true or false.

Evidence: The nose ring.

Weak. **Why:** They didn't want to go there.

Evidence: The Indians told Columbus/gold nose-ring

Weak. **Why:** Much gold to the Indians may not be much gold to Columbus.

Notes

MASSACHUSETTS DEPARTMENT OF EDUCATION

REGIONAL CENTERS

Marcy Devanney
Northwest Regional Center
Berkshire Plaza
37 Main Street
North Adams, MA 01248
413/664-7101

Paul Burnim
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Amy Sosman
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North Andover, MA 01845
508/689-0164 or 617/727-0600

Laurie Slobody
Central Mass. Regional Center
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West Boylston, MA 01583
508/835-6266

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617/641-4870

Pat O'Brien
Southeast Regional Center
P.O. Box 29
Middleboro, MA 02346
508/947-1231

Related publications about the Massachusetts Educational Assessment Program:

- *The Massachusetts Educational Assessment Program: 1988 Statewide Summary*
- *Using the School Report*
- *Reading and Thinking: A New Framework for Comprehension*
- *Science in the Elementary Schools*
- *Moving Geometry from the Back of the Book: A Report on Geometry and Measurement in the 1986 Assessment*
- *Social Studies Report*
- *On Their Own: Student Response to Open-Ended Tests in Reading*
- *On Their Own: Student Response to Open-Ended Tests in Mathematics*
- *On Their Own: Student Response to Open-Ended Tests in Science*
- *On Their Own: Student Response to Open-Ended Tests in Social Studies*

APPLICATION

Massachusetts Educational Assessment Program
Open-Ended Scoring Session

Teachers and coordinators who have been involved in the scoring of the open-ended questions have found it to be a worthwhile and interesting professional experience. This year, the reading and scoring of the 1990 open-ended questions will take place at a two-day session during the week of June 25-29. If you would like to participate, please fill in and mail this application and you will be sent further details.

Name _____

Home Address _____

_____

Home Telephone _____

School Name _____

School Address _____

_____

School Telephone _____

I would be interested in scoring the following grades and subject areas:

GRADE LEVEL:

- ☐ Fourth
- ☐ Eighth
- ☐ Twelfth

SUBJECT AREA:

- ☐ Reading
- ☐ Mathematics
- ☐ Science
- ☐ Social Studies

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